## Lean Certification

Professional Development & Recognition







## Shingo Prize Model

#### **Enablers**

- I. Leadership Culture and Infrastructure
- A. Leadership 75 Points
- B. Empowerment 75 Points

#### **Core Operations**

- II. Manufacturing Strategies and System Integration
- A. Manufacturing Vision and 50 Points Strategy
- **B.** Innovations in Market 50 Points Service and Product
- C. Partnering with Suppliers/ 100 Points Customers & Environmental **Practices**
- D. World-Class Manufacturing 250 Points **Operations and Processes**
- III. Non-Manufacturina Support Functions

100 Points

#### Results

- IV. Quality, Cost and Delivery
- A. Quality and Quality 75 Points Improvement
- B. Cost and Productivity 75 Points Improvement
- C. Delivery and Service 75 Points Improvement

Feedback



Feedback



Feedback 🗡



#### **Business Results**

IV. Customer Satisfaction and Profitability







- Hill F-16 CCIP
  - Flow Days: from 147 to 122
  - Inventory: from 21 planes to 10
  - Annual savings: \$3.5M
- Hill Pylon Line
  - Flow Days: from 146 to 18
  - Inventory: from 65 to 17







- Tinker C-35 Tanker Line
  - Flow Days: 427 to 205
  - Inventory Days: 297 to 14
- Warner Robbins F-15
  - Flow Days: 52 to 28
  - Inventory: 34% reduction
- Warner Robbins C-5
  - Flow Days: 280 234
  - Savings: \$25M







- Red River HMMV
  - Flow Days: 40 to 10
  - Annual Savings: \$30M
  - Output: 0.5 units/day to 30 units/day
- Letterkenny HMMV
  - Flow Days: 76 to 26
  - Output: 1 unit day to 19 units/day







- Lessons Learned
  - Significant improvement can be achieved through major operational restructuring
  - Top down change management can be effective under the threat of closure and the pressures of war (burning platforms)







## Conclusions

- The most common low scoring area is "Empowerment"
- Improvement cannot sustain without employee involvement
- Lean Training and Development are key







## Today's Agenda

- Lean Certification Partnership
- Lean Certification Overview
- Benefits: Individual & Company
- Development Timeline
- Power of Volunteers







## Lean Certification Partnership







- Purpose: Develop a universally recognized professional credential that:
  - Differentiates levels of Lean knowledge and competency
  - Provides a standard methodology for measuring Lean knowledge and accomplishment
  - Focuses development on the next generation of Lean professionals
  - Facilitate members and constituents to develop a program to align lean practices

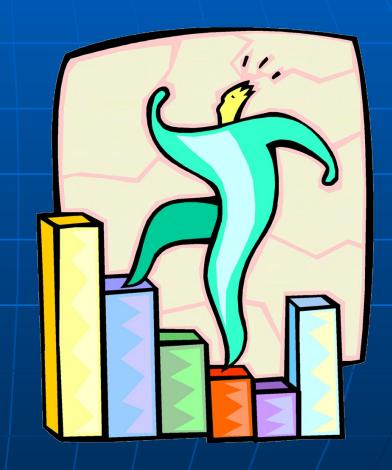






## Lean Certification Overview

- Industry-led
- Rigorous and Comprehensive
- MeasuringCompetence &Effectiveness
- Career Progression









## Lean Certification Program

- Lean BronzeCertification tactical
- Lean Silver Certification
  - integrative
- Lean Gold Certification
  - strategic

#### OH GROW UP... Get Certified Already!

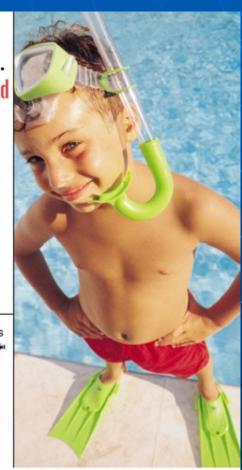
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#### SME CERTIFICATIONS

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# Lean Certification Level 1

Bronze







## Lean Bronze Certification

#### Candidates have:

- 4 years experience (lean, industry, academic study)
- 80 hours of training
- Solid understanding of lean principles and tools
- Ability for tactical implementation that drives improvements and shows results

Continued...







### Lean Bronze Certification

- Bronze exam
  - Receive a "Recognition of Lean Knowledge" certificate once passed
  - 3 years to complete portfolio requirements
- Portfolio:
  - 5 Lean projects (Participate)
  - Reflection on their portfolio
- Valid for 3 years (36 months); renewable.







# Lean Certification Level 2

Silver







## Lean Silver Certification

#### Candidates have:

- Significant professional experience and experience as a lean project leader on value stream transformations.
- 6 years experience (lean, industry, academic study)
- 160 hours of training
- Progressed in knowledge and responsibility to a senior employee and/or team leader.
- Experience mentoring and/or coaching individuals or teams.







## Lean Silver Certification

- All Bronze-level requirements.
- Silver-level exam
- Portfolio:
  - 3 tactical Lean projects (Lead)
  - 2 value stream transformations
  - Mentoring/coaching report
  - Portfolio reflection
- Valid for 3 years (36 months); renewable.







# Lean Certification Level 3

Gold







#### Candidates have:

- An understanding of lean transformation across an entire enterprise.
- 8 years experience (lean, industry, academic study)
- 200 hours of training
- Influence and authority over assets, processes and people.
- Lead ongoing business transformations to a lean model.

Continued...







- All Silver-level requirements
- All Bronze-level requirements
- Gold-level exam

Continued....







#### Portfolio:

- 1 tactical project
- 2 value stream transformations
- 2 strategic (business transformation) projects that include at least 2 of these classic value streams of:
  - new product development
  - order through delivery
  - supply chain
  - administrative functions

Continued...







Portfolio (cont'd)

- 1 mentoring/coaching report
- Portfolio reflection
- Interview (In person)
- Valid for 3 years (36 months); renewable.







## Lean Certification: The

- ApplySteps
- Written Exam
- Experience Portfolio
  - Including Mentoring/Coaching Requirements at Silver & Gold
- Interview (Gold)







## Certification Steps

**BRONZE** SILVER GOLD CERTIFICATION REQUIREMENTS OVERVIEW Interview Gold Portfolio Mentoring & Coaching Gold Exam Silver Portfolio (Value Stream) Mentoring & Coaching Silver Exam Bronze Portfolio Bronze Exam (Knowledge)

## Partners in Assessment and Recognition

- Companies
- Universities
- Manufacturing Extension Programs







## Organizations Supporting Development

3M Canada-London • Accelerator • Advanced in the Mantiacturing Center • Affeldt & Associates Consulting • Alabama Technology Network-Gadsden • Alexandria Technical College • Alion Science & Technology • AME • Anderson & Associates • Auburn University • AutoZone Inc • BAE Systems Electronics & Integrated Solutions • BBMS Inc • Better Enterprise Solutions Corp • Blackberry & Cross • BMA Inc. • The Boeing Co • Cardone Industries • Cascade Engineering • Caterpillar • Center for Quality Excellence-International Rectifier • CMC • CMTC • Corning Inc • Daimler Chrysler • Die PM Co • dj Orthopedics • Eastern Michigan Univ • Engineering & Technology Division, Curricula Development and Support Center, Defense Acquisition University • ESCM • Eveready Battery Co Inc • Federal-Mogul • FedEx Supply Chain Institute • Ferguson And Associates • Ford Motor Co • G Corp • General Motors Corp • General Motors Corp • General Motors Corp • General Motors Corp • Harding & Associates • Hearth & Home Technologies • High Performance Manufacturing Consortium • Hollinger Consulting • IES - NC State University • Kaizen Institute-Africa • Kennametal • L.E Borden Company • Latham International • Lean Enterprise Institute • Lean Enterprise Institute • Lean Learning Center • Levinson Productivity Systems P.C. • Manex • Master Solutions LLC • Minnesota State University, Mankato • Moffitt Assoc • Montana Manufacturing Extension Center • Navistar International • Neilsen Manufacturing • Neovista Consulting LLC • NIACC – Lean Implementation & Training, Economic Development • North Carolina State University • Northwood University • OMEP • Omnova Solutions Inc • Orbital Sciences Corp • Parker Hannifin – IHD • Parker Hannifin – Mobile Climate Systems Division • Passion Enterprises • Pawley Institute, Oakland University • Precision Castparts Corp • Productivity Centers International • Profero Inc • Progressive Edge • ProSol LLC • Randolph Air Force Base, Transformation Office • Sherwood Harsco • Shingo Prize • Siegel-Robert, Inc
• Sipes Manufacturing Co • SME • Smead Manufacturing Co • South Dakota State University •
Steelcase • Stewart & Stevenson, TVS • Takata • TCStoner Corporate Services • Technicolor • TEGAM,
Inc. • TEIM • Texas Manufacturing Assistance Center • Textron Automotive Co Inc • The Cumberland Group • The DJC Group • Tigerpoly Mfg • TIPE Inc • Total Systems Development Inc • Traex-A Libbey Foodservice Company • United States Air Force, Tyndall Air Force Base • University of Kentucky Center for Manufacturing • University of Memphis • Visual Workplace • Wild Dimensions • Wyle Laboratories • Zimmer Holdings







## Q&A





